

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

Information disclosure statement

An Information Disclosure Statement (IDS) is submitted herewith, listing the references identified in the specification. The examiner is requested to acknowledge consideration of these references in the next Office communication.

In the specification

The disclosure is objected to for certain informalities. In particular, the examiner notes that, at line 31 of page 2, "EP 0.674.826" should be --EP 0.674.826--. The specification has been amended to correct this typographical error.

Additionally, the specification has been amended, at page 15, to more clearly describe an aspect of the invention as seen in Fig. 16. It is respectfully submitted that this amendment is consistent with the original disclosure and is clearly apparent from the original illustrations. Accordingly, no new matter is added.

Rejection of claims 4, 6, and 19 under 35 U.S.C. § 112, second paragraph

Claims 4, 6, and 19 presently stand rejected as being indefinite. In particular, the examiner states that "the examiner is confused as to what 'simply' is" in the recitation of claim 4 that "the fibers are 'simply' placed in an opening in the holder." Also, the examiner notes that there is insufficient antecedent basis for the limitation "the side of the holder" in claim 6. Further, the examiner notes that there is insufficient antecedent basis for the limitation "the height of the fiber cartridge" in claim 19, and that the meaning of "height of the fiber cartridge are only partly filled" is unclear.

Claim 4 has been amended to remove the word "simply" and to simply recite that "the fibers are placed in an opening in the holder."

Claim 6 is amended to recite “a side of the holder.”

Claim 19 is amended to recite that “the take-up openings, when aligned with said fiber cartridge, are only partly filled by fibers from said fiber cartridge.” Thus, the recitation of “the height of the fiber cartridge” is eliminated. It is respectfully submitted that the amendment to claim 19 is fully supported by Figure 16, and by the description of Fig. 16 at pages 14-15, of the original specification. Further, the specification has been amended, consistently with the original disclosure and as clearly shown in Fig. 16, to more clearly describe the subject matter set forth in the amended claim 16.

In view of these amendments, and the foregoing remarks, withdrawal of this rejection is respectfully requested.

Rejection of claims 1, 3, 4, 12-14, and 16 under 35 U.S.C. § 102(b)

Claims 1, 3, 4, 12-14, and 16 presently stand rejected as being anticipated by Weihrauch (U.S. 5,176,427). This rejection is respectfully traversed for at least the following reasons.

Claim 1 sets forth a method for manufacturing brushes wherein far ends of fibers are subjected to a processing by bringing them into contact with a processing equipment, while the fibers are being *loosely held* together.

It is respectfully submitted that Weihrauch fails to disclose or suggest such a process wherein fibers and a processing equipment are mutually put into contact while the fibers are being *held loosely together*.

Weihrauch discloses that “the bristles are fixed as short cut portions or as a part of endless monofilaments with a distance from the bristle ends roughly corresponding to the final length. A clamping device, used in the production sequence for the brush, can be used for fixing the bristles in the configuration essential for the finished brush, or it can be the brush body or a part thereof in which the bristles are inserted during the production sequence.” (Weihrauch; col. 2, lines 57-65).

Thus, Weihrauch teaches that the bristles are fixed, either by a clamping device or by a brush body into which the bristles are inserted and fixed. Therefore, Weihrauch cannot be construed to disclose or suggest that fibers are held loosely together during processing.

Accordingly, Weihrauch fails to anticipate the claimed invention, and withdrawal of the rejection is requested.

Rejection of claims 1, 3, 4, and 12-15 under 35 U.S.C. § 102(b)

Claims 1, 3, 4, and 12-15 presently stand rejected as being anticipated by Zahoransky et al. (U.S. 5,431,484). This rejection is respectfully traversed for at least the following reasons.

Claim 1 sets forth a method for manufacturing brushes wherein far ends of fibers are subjected to a processing by bringing them into contact with a processing equipment, while the fibers are being *loosely held* together.

It is respectfully submitted that Zahoransky fails to disclose or suggest such a process wherein fibers and a processing equipment are mutually put into contact while the fibers are being *held loosely together*.

Zahoransky discloses an apparatus for finishing fibers, wherein fibers are fixed in a clamping grip. "The clamping grip 8 [...] can take hold of the bristle strands and clamp them securely [...]." (*Zahoransky*; col. 3, lines 66-68). Therefore, Zahoransky cannot be construed to disclose or suggest that fibers are held loosely together during processing.

Accordingly, Zahoransky fails to anticipate the claimed invention, and withdrawal of the rejection is requested.

Rejection of claims 1, 3, 4, 12-15, and 17-20 under 35 U.S.C. § 102(b)

Claims 1, 3, 4, 12-15, and 17-20 presently stand rejected as being anticipated by Boucherie (U.S. 5,728,408) (hereafter Boucherie '408). This rejection is respectfully traversed for at least the following reasons.

Claim 1 sets forth a method for manufacturing brushes wherein far ends of fibers are subjected to a processing by bringing them into contact with a processing equipment.

It is respectfully submitted that Boucherie '408 fails to disclose or suggest such a processing (finishing) of fiber ends. Moreover, Boucherie '408 does not disclose or suggest subjecting far ends of fibers to a processing by bringing them into contact with a processing equipment.

Boucherie '408 discloses a fiber alignment device, wherein a vibrating plate 64, 164 (represented in Figs. 3 and 10) vibrates slightly in a direction transverse to the fibers, to allow smooth insertion of the fibers from a package of fibers (bristles) into a tube. However, the vibrating plate 64, 164 does not perform any processing of fiber ends.

Accordingly, Boucherie '408 fails to anticipate the claimed invention, and withdrawal of the rejection is requested.

Rejection of claims 2 and 5-11 under 35 U.S.C. § 103(a)

Claims 2 and 5-10 presently stand rejected in view of Weihrauch, Zahoransky, Boucherie '408, or certain combinations of these references. However, as discussed above, these references each fail to disclose or suggest each and every element set forth in claim 1, from which the remaining claims depend. Accordingly, these references, either individually or in combination, cannot form a prima facie case of obviousness of any claims 2 and 5-10 since even in combination these references fail to disclose or suggest each and every element set forth in claim 1, for at least the reasons discussed above.

Moreover, with respect to the cited combination of Boucherie '408 and Zahoransky, Applicant notes that, as discussed above, Boucherie '408 discloses a fiber alignment device and not a device (or method) for finishing ends of fibers. Accordingly, there can be no motivation or suggestion to combine these references, or to modify one by the other.

For example, while the examiner asserts that "it would have been obvious [...] to substitute the end rounder of Zahoransky for the end rounder as taught by Boucherie,"

Boucherie '408 does not teach an end rounder or any other end processing equipment or method. To substitute Zahoransky's end rounder for the fiber alignment device of Boucherie would result in an apparatus entirely altered from, and incapable of performing, its intended functionality.

Further, regarding the rejection of claim 11 in view of Weihrauch or Zahoransky in further view of Boucherie '303 (U.S. 6,290,303), Applicant notes that Boucherie '303 does not disclose or suggest any method or apparatus for processing ends of fibers. Accordingly, Boucherie '303 fails to supplement the deficiencies discussed above with respect to the elements set forth in claim 1, from which claim 11 depends. Therefore, claim 11 is allowable over the cited references for at least the same reasons discussed above with respect to claim 1.

For at least these reasons, withdrawal of these rejections is respectfully requested.

Double patenting

Claim 1 presently stands rejected on the ground of nonstatutory obviousness-type double patenting, as being unpatentable over claim 1 of U.S. 6,837,548, claim 1 of U.S. 6,406,099, claims 1, 3-5, and 8 of U.S. 6,702,394, claims 1, 14, 16, and 32 of U.S. 6,779,851, and claims 1 and 2 of U.S. 6,372,163. These rejections are respectfully traversed for at least the following reasons.

Applicant notes that of these patents cited, only U.S. 6,372,163 (Boucherie '163) relates at all to the finishing of fibers. However, according to U.S. 6,372,163, a bundle of fibers are clamped radially at a predetermined distance from the free ends of the fibers (see *Boucherie '163*; col. 2, lines 55-58). This is counter to the presently claimed invention, wherein fibers are loosely held while processing fiber ends.

The remaining patents are not related to end processing of fibers. U.S. 6,837,548 concerns cutting of fibers. U.S. 6,406,099 and U.S. 6,702,394 each relate to fixing of fibers in a brush holder, by means of melting a part of the fibers. Thus, neither provides any teaching or suggestion of processing ends of fibers by bringing them in contact with a processing equipment.

U.S. 6,779,851 (Boucherie '851) discloses a method of producing brushes by connecting a brush plate to a brush body. No teaching or suggestion at all is provided with respect to finishing ends of fibers. While the examiner asserts that, according to Boucherie '851, "the ends of the fibers are brought into contact with an ultrasonic welding tool," Applicant notes that it is a brush plate 14 which is welded to a brush body 10. "The ultrasonic welding device acts [...] on the *peripheral rim of the carrier plate 14* [...] with the result that a reliable load-bearing joint is produced at the bottom of the recess 12 *between the brush body 10 and the plate 14.*" (Boucherie '851; col. 2, lines 50-58) (emphasis added). There is no teaching or suggestion that fiber ends are ever welded, or brought into contact with an ultrasonic welding tool.

For at least these reasons, withdrawal of these rejections is respectfully requested.

Conclusion


In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1-20 be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's attorney, the Examiner is invited to contact the undersigned at the numbers shown.

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Date: October 31, 2006

Respectfully submitted,


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